

Mirapoint in Education Worldwide: Customer Success Stories



Contents

- 3 Introduction
- 4 Mirapoint Means Services
 - 5 University of Oxford
 - 7 Queensland University of Technology
- 8 Mirapoint Means Simplicity
 - 9 University of Georgia
 - 10 Temple University
 - 12 University of Cergy Pontoise
- 14 Mirapoint Means Security
 - 15 Virginia Tech
 - 17 Hong Kong Polytechnic University
- 18 Conclusion
- 19 Top Ten Reasons Why Educational Institutions Choose Mirapoint

Introduction

Information Technology (IT) managers at today's educational institutions face the challenge of deploying an email service that meets the growing demands of their students, faculty, and staff. Traditional messaging solutions used by most organizations are complex, with high management costs and reliability issues. In many instances, messaging software is installed on general-purpose servers with no optimization or scalability in mind. Plus, unique staffing is often required for database administration, system administration, and postmaster functions, which can increase ongoing operational costs.

Many solutions have become complicated, loosely integrated suites of hardware and software from multiple vendors, compounding the task of managing them and limiting their scalability and flexibility. Expanding or adding new services such as webmail, wireless messaging, and calendaring requires the integration of more hardware and software. Often IT departments must rely on vendors' professional services groups to implement and integrate a custom service.

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What educational institutions need is to build their message networks around the three S's: Services, Simplicity, and Security. Mirapoint offers robust, purpose-built, integrated software and hardware systems optimized for messaging services. By eliminating the complications of managing traditional multi-vendor products, the Mirapoint approach provides a single, integrated solution with a wide variety of messaging services that can be managed easily and securely.

Mirapoint's messaging components are both flexible and modular to work seamlessly within an organization's current infrastructure, leveraging existing investments like Microsoft Exchange. Scaling is as easy as adding another Mirapoint system as email volume or users grow—resulting in lower total cost of ownership (TCO) over the life of the system.

Mirapoint's comprehensive messaging solution 'makes the grade' when it comes to email on campus. More than 100 leading educational institutions worldwide have selected Mirapoint solutions for their message network. This case study looks at seven of those educational institutions, the challenges they faced, and why they chose Mirapoint as their single messaging solution. Included in this study are University of Oxford, Queensland University of Technology, University of Georgia, Temple University, Virginia Tech, University of Cergy Pontoise (Paris), and Hong Kong Polytechnic University.

Mirapoint Means Services

Most educational institutions are familiar with email. Students, faculty, and staff increasingly rely on messaging as a tool to pursue their education or perform their jobs. According to Harris Interactive, a consulting firm, 93% of college students regularly use the Internet, making them the most connected segment of the population. Increasingly, email is becoming the medium of choice for communications between professors, staff, and students.

As the pace of communications quickens, however, basic email is no longer adequate to meet the demands of users. They want robust features like calendaring, address book, and to-do lists built into their messaging service. They also want to access email via the Web or their cell phones. But they don't want the inconvenience of spam that wastes their time, or the hazards of viruses that can infect their computers. Most of all, they want these features to be reliable and easy to use.

Mirapoint provides a comprehensive solution that meets the demanding needs of the educational market. We are the messaging experts focused 100 percent on the development and evolution of email and security solutions. Our purpose built email server appliances offer flexible webmail and wireless messaging capabilities as well as calendaring, address book, to-do list, virus scanning, and anti-spam features. Class-of-service controls allow the administrator to deliver specific feature sets to students, staff, or alumni to enable customized services for each user type. The fully integrated approach makes features easy to use and highly reliable with a proven 99.999% availability. The ability to rapidly deploy Mirapoint systems and streamline management results in faster return on investment (ROI) and TCO.

Following are two institutions that are benefiting from Mirapoint's robust messaging service-delivery platform.





Background

The Division of Structural Biology (STRUBI) forms part of the multidisciplinary Nuffield Department of Clinical Medicine within the University of Oxford. The research interests of the Division include the structural study of viral proteins and intercellular recognition. Approximately 70 researchers within the Division rely heavily on email to keep in touch and collaborate. Many spend time at research facilities in France, Germany, the United States and other countries, so the need for efficient email communications is critical even when using other labs' hardware and a variety of operating systems. The technical nature of their work also requires these researchers to frequently exchange very large file attachments – up to 30 megabytes or more – as well as needing long-term storage of large volumes of email.

The Business Need

To support its email needs, STRUBI had been running a pair of UNIX servers with the freeware Exim message transfer agent (MTA) and Univ. of Washington IMAP daemons. This mix of hardware and software was no longer able to provide adequate response to each user, particularly for the large number and size of message attachments. While the Exim MTA was reliable, the IMAP daemons would die unexpectedly, frustrating the users by causing deleted emails to reappear, and the Windows-based webmail server had become unusably sluggish. It also limited STRUBI's flexibility to add additional message-based services, such as calendaring.

After a five-year trial, the researchers decided the experiment was over. What they needed was a self-contained email solution with improved remote connectivity and intrinsic webmail functionality, while retaining multi-gigabyte message storage capacity. With STRUBI IT staff focused on supporting research, they needed a 'plug & play' solution that was always available with low management overhead.

The Mirapoint Solution

The team evaluated several options. A homebrew Linux/Exim/IMAP/SquirrelMail solution would only provide a temporary fix and drain IT support. Lotus' Domino/Notes did not appear to have the performance required at the user client end, and Microsoft Exchange/Outlook, while having a good client interface, appeared too difficult and time-consuming to manage. A fourth option, supplied by EZ Web Communication Ltd. of Gloucester, UK, seemed to contain the right formula. "The Mirapoint appliance was brought to our attention by Oxford University Computing Services," says Dr. Robert Esnouf, Head of Bioinformatics & IT within STRUBI. "The key selling points for us were the effortless manageability, high availability, and reliable fully featured webmail on a single email appliance." Mirapoint also delivers important security features such as virus and spam filtering. Using technology from Sophos, the Mirapoint Message Server delivers virus filtering for all incoming and outgoing messages. The anti-virus software protects STRUBI's users from infections, eliminating disruptions,

lost data, and lost productivity. New virus definition files are automatically updated hourly, reducing management and concern. Mirapoint's powerful spam filtering software also updates automatically and allows STRUBI's users to individually set parameters for spam control, manage their personal junk mail quarantine, and view their junk mail folders.

Acceptance of the new system has been dramatic. "Within the first six weeks of operation, half the researchers had migrated to webmail even when in the lab because of its performance and usability," says Dr. Esnouf.

Because STRUBI's population, including IT staff, are researchers, ongoing technical support is now provided by EZ Web Communication Ltd of Gloucester, UK, a Mirapoint partner specializing in systems integration for the education sector.

STRUBI's dedicated researchers now have an email solution that keeps pace with their demanding performance and storage requirements, enabling them to communicate and collaborate effectively wherever they are around the world.

"Performance, reliability, and storage were our watchwords, coupled with a system that required a minimum of maintenance," says Dr. Esnouf. "Despite a relatively small user base, Good research is all about pushing equipment to the limit. I am happy to say that the Mirapoint solution has proven itself more than up to the challenge of such a tough environment."

Background

Queensland University of Technology, located in northeastern Australia, is one of the country's largest educational institutions with over 30,000 students, plus 5000 faculty and staff. The university had been struggling with a system that was a combination of proprietary and homegrown freeware-based messaging platforms that included Cyrus, Qpopper, PMDF, Compaq Tru64 UNIX, and VMS.

The existing system was large and cumbersome with substantial administrative overhead. It was nearly impossible to find qualified staff that could “walk in” and operate the system. There were performance problems with the system and nearly constant instability.

Challenge

The university had no choice but to consider replacing the legacy messaging system. They drew up a list of features and capabilities that the new system must include. To provide access to all users from wherever they were or from whatever device they used, the new system had to support not only Post Office Protocol (POP), but webmail and Internet Message Access Protocol (IMAP) clients. It also had to integrate with the existing Novell eDirectory that enabled user authentication and account provisioning, and it had to be capable of delivering 99% of all emails in less than two minutes.

Furthermore, the new system had to meet the needs of current users, and provide capacity for projected growth over the next three years. It needed to be able to scan all email attachment types for viruses, and also provide a platform for future messaging services such as calendaring and voicemail. Finally, it had to be deployed by the beginning of the 2002 second semester—just months away.

Solution

The university benchmarked three solutions: freeware, Sun Microsystems' iPlanet, and Mirapoint. The solution from Mirapoint met all of Queensland University's rigorous requirements. It provided a cost-effective system with simplified management capabilities. It also demonstrated proven reliability, scalability, and performance. And it offered a platform for the university to address increasing message traffic and users, as well as new messaging services.

Mirapoint Means Simplicity

Messaging solutions at most educational institutions have evolved over time to include a complex integration of multiple vendors' products. They are prone to high management costs and reliability issues. Adding new services requires purchasing and integrating new hardware and software—and often-costly professional services support from vendors. Ongoing management can be difficult without integrated management tools and unique staffing is often required for mail database administration, system administration, and postmaster functions.

Mirapoint delivers purpose-built, integrated messaging systems that eliminate the complications associated with traditional messaging services deployment. Educational institutions can deploy services more rapidly than competitive solutions that require integration between software, hardware, storage, and other components. Based on Internet standards, Mirapoint's solutions make it easy for organizations to add or integrate functionality. Mirapoint also offers the industry's lowest TCO for messaging, which enables technical resources to be redirected from ongoing management to focus on adding new services, further accelerating deployment and increasing user satisfaction.

Following are three institutions that are benefiting from Mirapoint's ability to easily deploy, manage, and maintain reliable messaging services.



Background

America's oldest state-chartered university, the University of Georgia was founded in 1785. The main campus, located in Athens, Georgia, had 45,000 students, faculty, and staff relying on a homegrown solution, known as "Arches", for campus-wide email.

Although up-front costs of the homegrown solution were moderate, the University quickly discovered that this approach proved unreliable, required significant ongoing maintenance and expensive hardware investments, and also lacked the flexibility to add new messaging services. "Email is essential to the learning process and ongoing flow of communications between our students, faculty, and staff," says Greg Ashley, Executive Director and Assistant CIO, Enterprise Information Technology Services for the University. "We needed an email system that could scale to eventually handle 100,000 users."

Challenge

What the University needed was a reliable, scalable system that would make it easy to add features in the future. Kirk Bertram, UGA's CIO and Associate Provost, enlisted the help of a committee composed of several directors of IT from across campus to identify issues, alternatives, and make recommendations. The process involved thorough dialog with several independent consultants, rigorous testing, and input from a cross-sectional campus focus group.

Solution

After receiving proposals from a number of suppliers, the evaluation committee narrowed their search to two: Novell Netmail and Mirapoint, represented by the Newman Group, which focuses on the educational market. "In the end, Mirapoint was the unanimous recommendation of the selection committee to manage the tremendous volume of email that we have, while providing a robust and user-friendly interface—all with a very reasonable total cost of ownership," says Ashley. Bertram agreed. "There is simply no room in this environment for a legacy email system. Mirapoint was the only choice."

The University has deployed Mirapoint Message Servers to deliver POP and IMAP services for its desktop email users and webmail for its mobile user population. To facilitate online collaboration, UGA is using Mirapoint's web-based group calendar and address book. They have also implemented Mirapoint Message Directors to secure incoming email traffic and guard against spam, virus, and hacker attacks.

Background

Temple University, located in Philadelphia, Pennsylvania, is the 36th largest university in the United States. Like many institutions, Temple's email service has become a communication tool as important as the telephone. Its 35,000 students, 3000 faculty, and 5000 staff—more than 43,000 in all—are avid email users. Email even reaches to the University's two small campuses in Tokyo, Japan and Rome, Italy. It is, therefore, essential that this critical form of communication be reliable and accessible at all times to all users.

Challenge

Over the years, Temple's email environment grew in a haphazard fashion as they met expansion requirements by purchasing separate hardware, software, and general-purpose operating systems. This resulted in costly integration of generic, multi-vendor email solutions that created a management nightmare. By 2002, the University had deployed a large Sendmail server hosting most of the students, a Novell Groupwise system running on a Windows-based platform hosting 2000 users, a smaller Sendmail server on an aging UNIX server hosting 400 users, and a small Microsoft Exchange system.

These disparate systems were spread across the campus and required a staff of four to five full-time IT professionals to manage them. Because the systems were reaching capacity, users were often unable to log on during peak periods. A lack of flexibility also meant that the different needs of students, faculty, and staff could not be met. In October 2002, the University's messaging problems came to a head. "The decision was to either add yet another server, or replace them all with a single robust, reliable, and scalable solution," says Charles Mathew, Director, Database Applications and Digital Media Development.

Solution

Temple decided they needed a more affordable, flexible, and efficient solution that could scale to meet the demands of the expanding university. A team evaluated a number of solutions including Microsoft Exchange, Sun's iPlanet, Critical Path, and Sendmail, in addition to Mirapoint.

A demo system provided by Mirapoint offered convincing evidence that the Mirapoint appliance was easy to configure and administer and proved reliable throughout the trial period. Temple also contacted several Mirapoint educational customers, including Wayne State University. "The key selling points for us were the appliance concept, the proven installations within the educational market, and ease of expansion," says Mathews.

The staged migration to Mirapoint began in June 2003 when the 2000 Groupwise users were moved. Then, in December, 37,000 Sendmail users were successfully migrated over—in a single weekend. Microsoft Exchange users will be migrated by mid-2004.

To support its Mirapoint user population, Temple installed two Mirapoint MD400 Message Directors as access proxies and two Mirapoint MD400 Message Directors for routing and security filtering of spam and viruses. The University also installed three Mirapoint M4000 Message Servers and one Mirapoint M4500 Message Server to serve the majority of users, plus a Mirapoint M400 Message Server to support a select group of users. The Message Servers provide IMAP, POP, Webmail, personal and group calendar, and address book features. Users can individually set parameters for spam control and manage their personal junk mail quarantine, which Temple saw as a key differentiator in selecting Mirapoint.

The resources required to manage the Mirapoint appliances have been slashed by 80 percent. “Before Mirapoint, it took five IT professionals to manage the assortment of Exchange, Sendmail, and Groupwise messaging systems,” says Mathew. “Now, management and administration of the email system has been reduced to one full-time person.”

The Mirapoint solution has also brought significant changes to the Temple campus. “Since we deployed Mirapoint, the number of email messages has doubled,” says Mathew. “That’s a direct result of the highly reliable and always-accessible Mirapoint solution. Complaints about slow mail delivery and no accessibility have virtually disappeared. Helpdesk questions from users are no longer about how to access their mailbox or report that email is down. Instead, they are asking how to use features they never had before. Even our users in Tokyo and Rome have no difficulty accessing their email through Webmail. At last, students and faculty are able to use the system the way communications should be used.”

Aside from a more reliable, better performing, lower TCO, manageable solution, Temple also noted that Mirapoint’s Professional Services and Support organizations are exceptional. Customized branded, migration time from legacy equipment and support help were needed services that Temple says has worked perfectly. Mirapoint ProServ also gave Temple flexible tools for migrating users on demand, so Temple’s IT team could manage the deployment over time as best fit their business. In addition, Mirapoint ProServ helped Temple integrate the Mirapoint solution (using standards-based interfaces) into an existing Blackboard-based portal used within the university environment.

Background

Founded in 1991, the University of Cergy Pontoise is a public educational institution emphasizing scientific, cultural, and professional studies. It has five training and research facilities, a technology institute, and a general administration-training institute. Distributed across seven sites around Paris, the university has a student population of 11,000. The university's overworked messaging system consisted of Sendmail and Qpopper running on an aging UNIX server.

As a relatively new institution, the university was still growing rapidly. The messaging server, however, was becoming less able to keep up with the expanding number of users and messages. Spread across seven locations, 350 administrative staff depended upon email to keep in touch. But the service was difficult to manage with individual upgrades, patches, and logs required for Sendmail, Qpopper, and the UNIX operating system—all performed using arcane command line interfaces. The IT group was concerned about the many vulnerabilities residing in Sendmail, Qpopper, and UNIX. They were also frustrated by the lack of scalability of the server.

Challenge

The Information Technology department sought a scalable, easy-to-manage system that would allow staff to check and manage their email via the Internet in France or when traveling abroad. Webmail would be difficult to add to the current server, and IMAP was not even a possibility. Needed was a solution that could simplify management, enabling upgrades that could be performed in a single operation. The IT group also wanted to be able to delegate management by domain to different users.

The new system would also need to provide scalability for current and future needs, and offer webmail and IMAP capabilities to allow users to check messages from any web browser or even a WAP-enabled cell phone.

Solution

The university evaluated three alternatives including Sendmail, Sun's iPlanet, and Mirapoint. "We chose Mirapoint based on three simple criteria: they're reliable, they're efficient, and they're easy to configure and manage," says Edouard Gherardi, Officer of Information Technology Networks and Security Officer for the university. "In addition, Mirapoint's expert technical support staff is always available, guaranteeing us a messaging solution that will always respond to users' needs."

The system allows users to check their email from campus or remotely via a secure Internet connection and provides an automated answering service for each user. The integrated anti-virus software powered by Sophos ensures that viruses don't compromise the network.

The Mirapoint messaging system is easy to install and use, making it simple for IT administrators to incorporate it into any network environment. While conventional solutions require administration of both an operating system and email software, the Mirapoint Message Server has a single administration console, making management of the system easier.

Concerns over reliability are also gone with the new system, which offers redundant data storage and power for maximum availability.

Mirapoint Means Security

According to Gartner Group, over 80% of all computer viruses enter a company's network through email, with the typical virus infection costing an organization up to \$500,000 per incident. Educational institutions, too, must deal with the cost and disruption caused by viruses as well as spam.

Mirapoint has partnered with industry leader, Sophos to provide integrated protection against virus threats. Using technology from Sophos, Mirapoint's Message Server and Razorgate Appliances (previously known as the Message Director) can rapidly deliver virus filtering for all incoming and outgoing messages that can be managed from the unified Mirapoint administration interfaces.

Mirapoint also provides powerful technology to block against spam, including capabilities for blocking known users and domains and support for real-time blackhole lists (RBLs). Mirapoint is the only vendor that offers personalized spam controls, like individual black/white lists and content filters, so end-users can better manage their incoming email and define what is and what is not spam. For additional spam defense, Mirapoint supports Simple Mail Transfer Protocol (SMTP) authentication to guarantee only approved users can send email through the Mirapoint gateway. Mirapoint's integrated anti-spam features dramatically improve overall email performance and system reliability by reducing the resources wasted on unsolicited emails.

Following are two institutions that are benefiting from Mirapoint's security features including anti-virus and anti-spam protection.



Background

Encompassing 100 buildings on a 2600-acre campus, Virginia Polytechnic Institute and State University (Virginia Tech), located in Blacksburg, Virginia, is an impressive institution. Founded in 1872, the school has more than 25,000 students and 7000 faculty and staff. Its campus-wide messaging system currently has 82,000 registered users.

Faculty, staff, and students are supported on a Sun Internet Mail Server (SIMS) installed in September 1999, while around 2000 faculty use Microsoft Exchange, deployed in November 1998. “We installed virus protection on the Exchange server virtually from the time we brought it up,” says William Dougherty, Computer Systems Senior Engineer at Virginia Tech. “We saw the kind of impact it was having. The viruses that were being caught increased dramatically from late 1998 to late 1999.”

Challenge

Protecting non-Exchange users from viruses was becoming a major challenge. The helpdesk was receiving 10 to 20 calls each day for virus-related problems. “We estimated that it was costing between \$120 and \$150 per call to resolve those problems,” says Dougherty. “Students, who were paying a technology fee, expected more service, and staff were losing productivity. They weren’t able to do their jobs. It started to become an issue.”

Solution

Dougherty considered installing anti-virus software on the SIMS server, but decided against that approach. “Getting something to work with the hooks to go into the SIMS box would have been difficult because it was a proprietary product,” recalls Dougherty.

They also tested virus software running on a Sendmail front-end device using a small Intel-based Linux box. “There was an awful lot of overhead, and there was more management involved. The cost model was also prohibitive because we would have to pay a fee to the virus software company for every user on the system.

He then turned to Mirapoint. “We could put the Mirapoint product out in front of the mail server, so we didn’t need to worry about the load on the SIMS server or software compatibility.”

The university installed four Mirapoint Message Directors with load balancing in August 2001. Early on, the system was registering 50,000 virus hits a day. “By implementing the Mirapoint solution, that number has decreased by 97%,” says Dougherty.

With viruses under control, Dougherty turned his attention to the other email problem—spam. “We were getting pounded by spam. It was a problem we had to do something about.”

Leveraging the customization capabilities of the Mirapoint solution, the university created an effective spam filter. Whenever someone comes into the network with more than 100 simultaneous SMTP connections, the system logs it, the email is purged from the queue, and then the Internet Protocol (IP) address is added to a black list. “Because it’s blocked before it gets to the mail server, it lightens the load on the system,” says Dougherty. “We have over 200 sites that we currently block.”

Background

The Hong Kong Polytechnic University is the largest university grants commission-funded tertiary institution in Hong Kong, with 22,000 students and 3000 faculty and staff. To serve the messaging needs of its students, faculty, and staff, it had purchased separate hardware and storage components and general-purpose operating systems. Creating a fully functional messaging server in this manner required extensive integration of disparate hardware and software components.

Challenge

“All students, staff, and faculty members demand quick and reliable access to computing and email resources for administration, research, teaching, and learning,” says Kent Leung, Chief Computing Officer for the Information Technology Services Office at the university. With email traffic—and incidents of viruses—on the rise, the university decided to take action. “We needed to upgrade our existing system to provide better virus protection,” say Leung.

Because managing and maintaining a messaging system is a complex and costly function, Leung looked for an easily manageable and cost-effective approach to enhance their messaging infrastructure. Strong anti-virus protection was critical to any solution considered.

Solution

Hong Kong Polytechnic selected Mirapoint. The Mirapoint Message Director is a tightly integrated messaging hardware and software system that is simple to deploy. With support for Internet standards, the Mirapoint solution works within any Internet messaging environment to provide high-performance, scalable message routing services. “It allows staff and students to send and receive messages with anti-virus protection, and it works on a cross-platform basis for ease of deployment,” says Leung.

Conclusion

Educational institutions' message networks need to provide email and related services for a diverse set of users including students, faculty and alumni. As a result, schools need a scalable, cost-effective platform that can be tailored to meet these requirements, while being secure and easy-to-manage.

Mirapoint provides a total solution for educational institutions that combines enterprise-class functionality of groupware solutions with the carrier-grade reliability and scalability found only in Unix-based solutions. By selecting Mirapoint, your institution's message network can benefit from greater security, services and simplicity - all from one source, with one solution. Mirapoint's success in educational institutions around the globe demonstrates the reliability and effectiveness of its solutions for this market.

For more information on how Mirapoint can improve the security, service delivery and simplicity of your message network, visit our Web site at www.mirapoint.com, or call us at 408-720-3700.

Mirapoint Message Server Appliances

The Mirapoint Message Server appliances are high performing email servers that provide desktop email as well as web and wireless access. It also features integrated technology to block spam, viruses, and hacker attacks, plus a portfolio of collaborative services such as group calendaring.

RazorGate Email Security Appliances (previously known as the Mirapoint Message Director)

The family of RazorGate™ Email Security Appliances provide the best spam, hacker, and virus protection in a remarkably easy-to-use design that can secure any mail server including Microsoft Exchange.

Mirapoint's MailHurdle technology provides an industry-leading approach that drops up to 80 percent of threats at the network edge before network bandwidth, storage, processor, and administration resources are wasted. In combination with Mirapoint's Full-Spectrum email security technology, customers can achieve overall catch-rates of 98 percent with virtually zero false positives. Automated updating provides the latest and greatest protection against new and evolving spam threats.

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Top Ten Reasons Why Educational Institutions Choose Mirapoint

More than 800 customers worldwide, including Fortune 500 enterprises, service providers, government agencies and educational institutions have already standardized on Mirapoint appliances to securely route, store, access and manage their email. Here's why:

- 1** **Fast Deployment** – Mirapoint appliances provide a fully integrated hardware plus software solution purpose-built for messaging. Mirapoint appliances can be deployed in minutes by non-technical staff and provides a scalable architecture for delivering a broad range of messaging and security services quickly and easily.
- 2** **Easy Administration** – Since Mirapoint appliances include tightly integrated hardware and software components, customers can deploy messaging and security services more quickly than with general-purpose products. With Mirapoint, customers also get unified management tools that simplify ongoing administration tasks, as well as network-based upgrades that make it easy for customers to take advantage of the newest Mirapoint features.
- 3** **Messaging Services** – Mirapoint appliances are designed around service-delivery, so customers can quickly deploy POP and IMAP email, support desktop clients like Outlook, offer Webmail and access from wireless clients, as well as advanced collaborative features like group calendaring, address book and to-do lists. Mirapoint's support for native Internet standards also simplifies the integration of the messaging system with third-party technologies, such as voice gateways as part of unified communications services.
- 4** **Comprehensive Security** – Mirapoint appliances employ a secure, hardened operating system with no known exploits. In addition, Mirapoint appliances include features for blocking spam and virus threats, as well as advanced capabilities for content filtering and policy enforcement over message traffic. Mirapoint also offers complementary solutions to address customers' requirements around email archival and disaster recovery.
- 5** **Class-of-Service Controls** – To further simplify the deployment of messaging-based services, Mirapoint appliances include class-of-service (COS) controls that allow administrators to quickly and easily define what specific services are provided to individual users and domains. For example, Mirapoint's COS controls allow administrators to easily configure different service packages for consumer versus business hosting customers or student versus faculty users.
- 6** **Highly Reliable** – With Mirapoint's integrated approach of providing a purpose-built, optimized system, customers get unparalleled reliability. Already Mirapoint's carrier-grade reliability has been demonstrated to exceed 99.999% uptime based on the actual monitoring of hundreds of deployed Mirapoint appliances.
- 7** **World-Class Performance** – In addition to providing high-levels of reliability, Mirapoint appliances also have proven world-class performance as certified by the industry-standard SPECmail benchmark for measuring message server performance.
- 8** **Scalability** – Mirapoint appliances are designed as modular components that can be quickly deployed in a customer's network as a single system to complement existing IT investments or as part of a large multi-tier architecture. With Mirapoint appliances, customers can easily scale their message networks simply by adding more appliances as users, service demands or message volumes increase.
- 9** **Integration with Legacy Infrastructure** – Mirapoint appliances support Internet standards and can integrate seamlessly with legacy infrastructure, such as third-party applications or existing IT investments, such as Microsoft Exchange.
- 10** **Cost-Efficient Solution** – For customers increasingly under pressure to manage IT expenditures, Mirapoint appliances have been independently validated by The Radicati Group as having the industry's lowest Total Cost of Ownership (TCO) for messaging services compared to competitive solutions from Microsoft, Sun/iPlanet, Critical Path and Lotus.